

proper, in the immature stage, and the size, texture and color of the subgenus *Hebetodiscus*.

Where in Jamaica Adams picked these shells up is unknown. He rarely gave localities for his Jamaican shells, but later collections have supplied them for most of the larger species. It is one of the Jamaican minutiae still to be rediscovered.

### A NEW SUBSPECIES OF HALIOTIS (*H. FULGENS TURVERI*)

By PAUL BARTSCH

During the cruise of the ALBATROSS in 1911, which extended from San Diego to the head of the Gulf of California, I collected a specimen of a *Haliotis* belonging to the *fulgens* group (U.S.N.M. No. 464211), in Santa Maria Bay, which was badly worn but much more elevated than the typical race.

Recently Mr. A. Sorensen secured some specimens from Magdalena Bay, which is nearby, which makes it necessary to recognize the southern race as a distinct subspecies. This is readily distinguished from the typical race by being much more elevated.

The type, U.S.N.M. No. 508764, presented by Mr. A. Sorensen, measures: Height, 68 mm.; greater diameter, 173 mm.; lesser diameter, 140 mm. The type has 3 breathing apertures; my specimen has 5.

The southern race is much more heavily eroded and encrusted than those from the northern region.

I take pleasure in naming this race for H. R. Turver, Director of the Santa Cruz Museum of Natural History, who accompanied Mr. Sorensen on his trip to the Gulf.

### NOTES ON THE MARINE MOLLUSKS OF CAPE ANN, MASSACHUSETTS

By RALPH W. DEXTER  
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During the summer months of 1933-37 and for brief periods in 1938 and 1940 the writer was engaged in ecological studies on the marine communities at Cape Ann, Massachusetts. Reports on these communities are in process of preparation for publication. Because several malacologists and others have shown interest and have made inquiries concerning the molluscan species found in

the tidal and subtidal communities of this region, it seems desirable to present at this time, a separate list of the mollusks with a few notes concerning the distribution and abundance of each. Collections were made on the intertidal zone by hand picking and by means of a clam fork, while a naturalist's dredge was used for subtidal collecting. Intensive collecting took place along and in a tidal inlet known as the Annisquam River. Numerous dredgings have been made in Ipswich Bay, several in Sandy Bay, and one series of dredgings made along the eastern coast of Cape Ann and in Gloucester Harbor.

#### I. AMPHINEURA

*Neomenia* sp. Numerous specimens dredged in Ipswich Bay.

*Chaetopleura apiculata* Say. Several specimens dredged in Sandy Bay.

#### II. GASTROPODA

*Onchidoris bilamellata* (L.). Dredged in the tidal inlet and occasionally found under flat stones along spring low water line.

*Aeolis* sp. Several dredged in the inlet.

*Melampus bidentatus* Say. Common in the high fox-grass (*Spartina patens*) marshes. Often found in small groups under solid objects. Occasionally found in upper margin of the thatch grass (*Spartina glabra*) marsh.

*Acmaea testudinalis*. Found on intertidal and subtidal rocks, shells, mussels, hermit crabs, in the deeper waters of the bays as well as in the inlet.

*Polinices heros* (Say). Common on all mud and sand beaches and bars, on bottom of inlet and in the bays.

*Crepidula fornicata* (L.). Many specimens on rocks and mussel beds in subtidal waters and along low water line.

*Crepidula plana* Say. Commonly found as a commensal with hermit crabs (*Pagurus* spp.). Collected in submerged tidal zone, in pools, and in subtidal region of inlet and bays.

*Littorina litorea* (L.). Found abundantly in every habitat and community. Most numerous along lower half of the intertidal zone. Dredged from inlet and bays. Found in small brackish estuaries of nearly fresh water and above high water line.

*Littorina saxatilis* Olivi (commonly known as *L. rudis* Maton). Abundant after 1934 on rocky shores near and above high water

line and on and among marsh grasses, particularly *Spartina glabra*. Occasionally swarm on the mud of marsh creeks. Few specimens, which were probably washed down, were dredged in the inlet. Remarkable fluctuation in abundance observed.

*Littorina obtusata* L. (commonly known as *L. palliata* Say). Abundant on seaweeds attached to intertidal rocks and among marsh grass in the low, thatch grass marshes.

*Lacuna vineta* (Montagu). Commonly collected on subtidal algae, particularly brown algae, in the inlet and in all bays. Very scarce, however, in 1935.

*Rissoa aculeus* (Gould). Abundant on mud, firm sand, and among mats of the green alga *Chaetomorpha linum*. Few specimens were dredged from the inlet.

*Skenca planorbis* (Fabricius). One shell found among sea wrack east along inlet.

*Aporrhais occidentalis* Beek. One shell found on Wingersheek Beach bordering Annisquam Harbor.

*Thais lapillus* (L.). After 1936 common on barnacle-covered rocks and mussel beds. Few specimens, probably washed down, collected while dredging inlet. This species was scarce for several years preceding 1936.

*Nassa trivittata* (Say). Common on sand and mud bottoms of inlet and bays. Few specimens collected on mussel beds near mean low water line.

*Nassa obsoleta* (Say). Abundant on soft, black mud; found in large discontinuous groups, especially in marsh creeks. A few specimens penetrate into lower margin of the marshes.

*Buccinum undatum* L. A number were dredged from Ipswich Bay.

*Neptunea decemcostata* (Say). Several dredged from Ipswich Bay.

*Colus stimpsoni* Möreh. Several dredged from Ipswich Bay.

### III. PELECYPODA

*Solemya velum* Say. Numerous in all intertidal sand and mud flats and bars.

*Solemya borealis* Totten. One shell found at Wingersheek Beach.

*Anomia aculeata* L. Dredged in small numbers from river

bottom and from all the bays. Two specimens were found on a rock among intertidal boulders bordering Annisquam Harbor in 1933. While these may have been washed in, that did not appear to be the case because of their natural position. Ordinarily this species is found below one fathom.

*Mytilus edulis* L. Widely distributed and abundant, forming mussel beds and colonies over flats and among rocks; common in crevices and around bases of rocks. Also common among thatch grass. Many specimens, chiefly small ones and seed, dredged from river bottom and from all bays. The variety *pellucidus* was often found among the others, on the intertidal mussel beds particularly.

*Modiolus modiolus* (L.). A few specimens were found at Spring low water line among the rocks on the northern shore of Gloucester Harbor and among the rocks on the eastern shore of Annisquam Harbor. Several were dredged in Ipswich Bay and in Sandy Bay.

*Modiolus demissus* (Dillwyn). Common in low thatch marshes of *Spartina glabra*, especially on margins of marsh creeks. Occasionally extend out into mud flats and rarely in crevices of rocks.

*Modiolaria nigra* (Gray). One shell found on shore of Gloucester Harbor.

*Astarte castanea* (Say). Few shells dredged in Sandy Bay.

*Venericardia borealis* Conrad. Few shells dredged in Sandy Bay.

*Arctica islandica* (L.). A number of specimens dredged in Ipswich Bay and Sandy Bay.

*Lucina filosa* Stimpson. A few specimens collected from mud flats.

*Cardium pinnulatum* Conrad. Several dredged from the inlet and a few from Sandy Bay.

*Spisula solidissima* Dillwyn. Many collected in sand at spring low water line at Wingersheek Beach bordering Ipswich Bay.

*Maetra lateralis* Say. Numerous in a sand bar of the inlet.

*Venus mercenaria* L. A number collected in sand at spring low water on Annisquam beaches.

*Gemma gemma* (Totten). Abundant on sand, mud and among mats of the green alga *Chaetomorpha linum*. Occasionally in the lower margin of thatch marshes. Many dredged from inlet.

*Callocardia convexa* Say. A number of shells collected on Wingersheek beach.

*Petricola pholadiformis* (Lam.). Several specimens dug from a sandy-mud bar.

*Tellina tenera* Say. A number dredged from soft, clay bottom of the inlet.

*Macoma balthica* (L.). Widely distributed and common in mud and sand beaches and bars.

*Ensis directus* Conrad. Widely distributed and common in mud and sand and occasionally dredged from channel.

*Siliqua costata* (Say). Many collected in sand bar of inlet.

*Mya arenaria* L. Widely distributed, and except for 1934, abundant in all mud and sand sediments. Sometimes found in low marshes. Seed collected on mussel beds and dredged from river bottom and Ipswich Bay.

*Saxicava arctica* (L.). Common in holdfasts of *Laminaria* spp. and often among blue mussels along low water line. Dredged from inlet and all bays, especially in holdfasts.

*Cyrtodaria siliqua* (Spengler). One shell dredged from Sandy Bay.

*Teredo navalis* L. One colony found in drift wood along shore of inlet.

*Xylophaga* sp. Several specimens in water-logged stem dredged from inlet.

*Cochlodesma leanum* (Conrad). Several shells collected at Wingersheek beach by Mrs. Frances Beardslee.

*Lyonsia hyalina* (Conrad). Two specimens collected along low water line, one attached to group of mussels, one in sandy-mud; several dredged from inlet.

#### IV. CEPHALOPODA

*Loligo pealei* Lesueur. Observed in shallow water of inlet. Some found stranded on marshes following spring tides.

### MESODON APPRESSUS (SAY) IN MARION COUNTY, INDIANA

BY GLENN R. WEBB

On October 26, 1941, a colony of *Mesodon appressus* (Say) was found in southwestern Center Township, Marion County, Indiana